

WHAT IS CLAIMED IS:

- Sub 11
D1
1. A folder for a web printing press comprising:
a first cutting and nipping device for partially cutting a web so as to form first cuts in the web, the first cutting and nipping device nipping the web; and
a second cutting and nipping device for cutting the web between the first cuts so as to form signatures, the second cutting and nipping device nipping the web.
 - Sub C1
2. The folder as recited in claim 1 wherein the web is nipped by the first cutting and nipping device circumferentially about a cutting surface of the first cutting and nipping device.
 - Sub 12
3. The folder as recited in claim 1 wherein the second cutting and nipping device includes a cutting cylinder having at least one segmented cutting element with cutting surfaces spaced apart axially and having nipping elements extending circumferentially with respect to the cutting surfaces.
 - Sub C3
4. The folder as recited in claim 3 wherein the second cutting and nipping device includes an anvil cylinder forming a nip with the nipping elements and an anvil for the segmented cutting element.
 - Sub 13
5. The folder as recited in claim 1 wherein the second cutting and nipping device includes an anvil cylinder having a urethane outer coating.
 6. The folder as recited in claim 1 wherein the second cutting and nipping device includes a cutting cylinder having a urethane outer coating.
 7. The folder as recited in claim 1 wherein the second cutting and nipping device includes a two-part metallic hub.

8. The folder as recited in claim 7 wherein a urethane layer is bonded to the outer surface of the hub.

9. The folder as recited in claim 1 wherein the second cutting and nipping device includes a cutting cylinder having two segmented cutting elements spaced 180 degrees apart.

10. The folder as recited in claim 1 wherein the second cutting and nipping device includes an anvil cylinder and a cutting cylinder indexable circumferentially with respect to one another.

11. The folder as recited in claim 10 wherein the anvil cylinder has a continuous outer layer.

12. The folder as recited in claim 11 wherein the outer layer is made of urethane.

13. The folder as recited in claim 1 wherein the second cutting and nipping device includes an anvil cylinder and a cutting cylinder, center distances between the anvil cylinder and the cutting cylinder being adjustable.

14. The folder as recited in claim 1 wherein the second cutting and nipping device includes an anvil cylinder and a cutting cylinder, the anvil cylinder and the cutting cylinder being cantileverable.

15. The folder as recited in claim 1 wherein the second cutting and nipping device includes a cutting cylinder having a hub and a segmented cutting element bolted to the hub.

16. The folder as recited in claim 1 further comprising guide belts for guiding the web past the second cutting and nipping device.

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17. The folder as recited in claim 1 wherein the first cutting and nipping device include a first cutting cylinder having nipping elements and having a first segmented cutting element having first cutting surfaces and the second cutting and nipping device includes a second cutting cylinder having nipping elements and having a second segmented cutting element having second cutting surfaces, the second cutting surfaces partially overlapping axially with respect to the first cutting surfaces.

Sub 13

18. A cutting device comprising:

a cutting cylinder having at least one segmented blade with axially-spaced cutting surfaces and nipping elements extending circumferentially with respect to the axially-spaced cutting surfaces; and

an anvil cylinder having an outer surface for providing a nip with the nipping elements and an anvil surface for the segmented blade.

19. A method for cutting a web comprising the steps of:

partially cutting the web so as to form first cuts in the web with a first nipping and cutting device;

nipping the web with the first nipping and cutting device;

cutting the web between the first cuts as the web with a second nipping and cutting device; and

nipping the web with the second cutting and nipping device.

add 57